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REMARKS

Claims 16-23, 25-32, 34-40, and 42-45 are pending in the application. Independent claim 16 has been amended to recite "a plurality of support portions formed at **edge corners** of the flat portion," as recited in independent claims 29 and 38. The amendment is fully supported by the application as originally filed.

Independent claims 16, 29, and 38 recite a heat dissipating structure for a semiconductor package including a flat portion and a plurality of support portions, where the support portions are "formed at **edge corners** of the flat portion" (independent claim 16; *see also* independent claims 29 and 38). As shown in FIG. 4, for example, the support portions are formed on a predetermined area of the substrate 20 without interfering with a chip 21 mounted on the substrate 20 (see, e.g., specification at page 4, lines 7-19; and page 9, lines 7-20). In other words, the heat sink 23 can remain connected to the substrate 20 via the support portions, allowing passive components to be located within and/or outside the heat sink 23.

Claims 29-32, 35-40, and 43-45 were rejected under 35 USC 103(a) as being unpatentable over U.S. Patent 6,580,167 to Glenn et al. ("Glenn") in view of "Applicant's admitted prior art" (hereinafter "AAPA"). Claims 34 and 42 were rejected under 35 USC 103(a) as being unpatentable over Glenn in view of AAPA, and further in view of U.S. Patent 6,246,115 to Tang et al. ("Tang"). Claims 16-23 and 26-28 were rejected under 35 USC 103(a) as being unpatentable over Glenn in view of AAPA and U.S. Patent 5,736,785 to Chiang et al. ("Chiang"). Claim 25 was rejected under 35 USC 103(a) as being unpatentable over Glenn in view of AAPA and Chiang, and further in view of Tang. These rejections are respectfully traversed.

The proposed combinations of Glenn in view of AAPA, Chiang, and/or Tang do not teach or suggest a heat dissipating structure having at least a flat portion and a plurality of support portions formed at **edge corners** of the flat portion for supporting the flat portion above a chip, such that the support portions do not interfere with the chip.

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Glenn discloses a heat sink 130 for a semiconductor package, the heat sink 130 including a projection ring 133 and four projections 134 (see column 5, lines 47-49). The projections 134 are used for supporting spring elements 150, which are cut from the projections 134 (see column 5, lines 61-63). The spring elements 150 "include legs 152 and feet 154" (see column 5, lines 63-64). The spring elements 150 cause an upper surface 130U of the heat sink 130 to press against an upper mold surface 310 of an upper mold half 306, which prevents the formation of flash on the upper mold surface 310 due to the presence of a gap between the heat sink 130 and the upper mold surface 310 (see column 8, lines 46-51).

However, Glenn does not teach or suggest a heat dissipating structure having a plurality of support portions formed at **edge corners** of a flat portion.

In Glenn, the spring elements 150, which are used for supporting the heat sink 130 on a substrate 102, are cut from the projections 134, and the projections 134 project outwardly beyond the respective planes defined by the spring elements 150 (see, e.g., FIG. 3 of Glenn). Therefore, the spring elements 150 do not correspond to Applicant's claimed "support portions formed at **edge corners** of the flat portion" *as claimed*.

The Chiang and Tang references, whether taken alone or in combination, do not remedy the deficiencies of Glenn.

In Chiang, as shown in FIG. 4C, four hemispherical downward projections 116c, which are used for connecting a heatspreader 116 to a top surface of a substrate 104, are located on the substrate 104 close to a die 102 (see column 4, lines 61-64), rather than on **edge corners** of a flat portion *as claimed*.

In Tang, a heat sink 32 is formed with a plurality of downward-extending supportive legs 321, each of which is formed with a through hole 321a which allows a compound 33 to be filled into the heat sink 32 to facilitate bonding between the heat sink 32 and the compound 33.

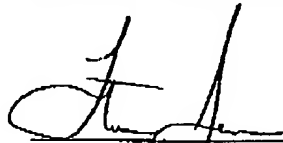
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However, in Tang, the supportive legs 321 are not formed on edge corners of a flat portion, but instead a plurality of positioning tongues 325 extend outwardly beyond the supportive legs 321.

Therefore, even if AAPA, Chiang, and/or Tang were somehow combined with Glenn, the proposed combination would not teach or suggest the Applicant's claimed invention as recited in independent claims 16, 29, and 38, for at least the reasons discussed above.

It is believed the application is in condition for immediate allowance, which action is earnestly solicited.

Respectfully submitted,



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